UNITED STATES PATENT AND TRADEMARK OFFICE

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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EXAMINER
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ART UNIT	PAPER NUMBER
2166	

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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

PTOL-90A (Rev. 04/07)

	Application No.	Applicant(s)
Office Action Summary	10/786,453	TUNNING, BRIAN R.
	Examiner	**Art Unit**	
	Khanh B. Pham	2166	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE <u>3</u> MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.
- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *18 October 2007*.

2a)☐ This action is **FINAL**.   2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1,3,4,6-10,12-14,16-22,24,26,27,29-36,38,39,41-44 and 46-58* is/are pending in the application.

    4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1,3,4,6-10,12-14,16-22,24,26,27,29-36,38,39,41-44 and 46-58* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

    Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

    Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

    a)☐ All   b)☐ Some * c)☐ None of:

        1.☐ Certified copies of the priority documents have been received.

        2.☐ Certified copies of the priority documents have been received in Application No. _____.

        3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

    * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1)☒ Notice of References Cited (PTO-892)

2)☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)

3)☐ Information Disclosure Statement(s) (PTO/SB/08)
    Paper No(s)/Mail Date _____.

4)☐ Interview Summary (PTO-413)
    Paper No(s)/Mail Date. _____.

5)☐ Notice of Informal Patent Application

6)☐ Other: _____.

DETAILED ACTION

Continued Examination Under 37 CFR 1.114

1.   A request for continued examination under 37 CFR 1.114, including the fee set

forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this

application is eligible for continued examination under 37 CFR 1.114, and the fee set

forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action

has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on October

18, 2007 has been entered. Claims 1,3,4,6-10,12-14,16-22,24,26,27,29-36,38,39,41-44

and 46-58 are pending in this Application.

Claim Objections

2.   **Claims 3, 7** are objected to because of the following informalities:

3.   Claim 3, line 2, "the **A** visual" should be changed to "the visual".

4.   Claim 7, line 7: "the **fist** set" should be changed to "the first set".

Appropriate correction is required.

Claim Rejections - 35 USC § 102

5.   The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that

form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

6. **Claims 1,3,4,6-10,12-14,16-22,24,26,27,29-36,38,39,41-44 and 46-58** are

rejected under 35 U.S.C. 102(b) as being anticipated by Anick et al. (US 5,175,814 A),

hereinafter "Anick".

     As per claim 1, Anick teaches a computer readable storage media encoded with

computer executable instructions that implement a visual query system comprising:

- "query criteria of a query expression displayed as shapes that have a semantic

  relationship which represents logical associations between the query criteria" at Col.

  6 lines 1-20 and Figs. 2-13;

- "where a first shape of query criteria is displayed proximate a second shape of query

  criteria within a visual query definition that is bordered to defined a Boolean

  association between the first shape and the second shape within the visual query

  definition" at Col. 6 lines 1-20 and Figs. 2-13;

- "a query statement generator configured to: determine the Boolean association

  corresponding to the semantic relationship of the shapes" at Col. 6 lines 10-26;

- "generate a SQL query statement for each shape of query criteria" at Col. 10-26 and

  Figs. 2-13;

- "combine the SQL query statements according to the Boolean association to

  generate the query expression" Figs. 14, 17, 20, 22-23;

- "generate a query result of the combined SQL query statements that form the query

  expression" at Fig. 20;

- "a user interface configured to display the query result of the query expression" at

   Figs. 2-13.

   As per claim 3, Anick teaches the storage media of claim 1, wherein "the first

shape of query criteria is displayed proximate the second shape of query criteria such

that the first shape has an AND Boolean association with the second shape" at Col. 6

lines 9-19 and Figs. 2-13.

   As per claim 4, Anick teaches the storage media of claim 1, wherein "the first

shape of query criteria is displayed proximate the second shape of query criteria within

the visual query definition such that the first shape has an AND Boolean association

with the second shape within the visual query definition" at Col. 6 lines 9-19 and Figs. 2-

13.

   As per claim 6, Anick teaches the storage media of claim 1, wherein "a first set

of query criteria are displayed within the visual query definition, and wherein a second

set of query criteria are displayed within an additional visual query definition, the first set

of query criteria including the second set of query criteria such that the addition visual

query definition is displayed within the visual query definition" at Figs. 2-13.

   As per claim 7, Anick teaches the storage media of claim 1, wherein "a first set

of query criteria are displayed within the visual query definition on the user interface; a

second set of query criteria are displayed on the user interface within an additional

visual query definition, the first set of query criteria including the second set of query

criteria such that the additional visual query definition is displayed within the visual

query definition; the query statement generator is further configured to generate a first

query result of the first set of query criteria and generate a second query result of the

second set of query criteria such that the first query result and the second query result

can be displayed as multiple query results" at Col. 8 lines 1-8 and Figs. 2-13.

As per claim 8, Anick teaches the storage media of claim 1, wherein "an

additional shape of query criteria is configured for display with the query criteria, and

wherein the query statement generator is further configured to: determine an additional

Boolean association corresponding to the semantic relationship of the additional shape

of query criteria; generate an additional SQL query statement for the additional shape of

query criteria; combine the SQL query statements and the additional SQL query

statement according to the additional Boolean association, and updating the query

result of the combined SQL query statements and the additional SQL query statement"

at Figs. 2-13.

As per claim 9, Anick teaches the storage media of claim 1, further comprising

"data tables that maintain data criteria, and wherein the query criteria is displayed in

user-identifiable terms as metadata that correlates to the data criteria maintained in the

data tables" at Col. 10 lines 15-65 and Figs 6-9, elements 600, 700, 800, 900.

   As per claim 10, Anick teaches the storage media of claim 1, wherein "the user

interface is further configured to: display criteria selections that include the query criteria

within a criteria selection display on the user interface; display the shapes of query

criteria within the visual query definition on the user interface; display the query result

within the visual query definition on the user interface" at Figs. 2-13.

   As per claim 12, Anick teaches a computer-readable storage media encoded

with computer-executable instructions that implement a visual query system,

comprising:

- "a visual query definition displayed to associate query criteria of a query expression,

   the query criteria displayed as shapes within the visual query definition such that

   proximate positions of the query criteria define query criteria associations" at Col. 6

   lines 1-26 and Figs. 2-13;

- "a query statement generator configured to: determine a query statement

   association for each display relationship of the query criteria" at Col. 6 lines 20-26;

- "generate a SQL query statement for each of the query criteria";

- "combine the SOL query statements according to the query statement associations

   to generate the query expression" at Figs. 14, 17, 20, 22-23;

- "generate a query result of the combined SQL query statements that form the query

   expression for display in the visual query definition" at Fig. 20; and

- "a user interface configured to display the query result of the query expression within

   the visual query definition on the user interface" at Figs. 2-13.

As per claim 13, Anick teaches a computer-readable storage media as recited in

claim 12, wherein "the visual query definition is further displayed to associate the query

criteria without logic operators connected between the query criteria" at Figs. 2-13.

As per claim 14, Anick teaches the computer-readable storage media

as recited in claim 12, wherein "the query statement generator is further configured to

determine the query statement associations as a Boolean association for each display

relationship of the query criteria" at Col. 6 lines 1-26.

As per claim 16, Anick teaches the computer-readable storage media

as recited in claim 12, wherein "a first query criteria is displayed proximate a second

query criteria within the visual query definition such that the first query criteria has an

AND query statement association with the second query criteria" at Figs. 2-13.

As per claim 17, Anick teaches the computer-readable storage media

as recited in claim 12, wherein "a first query criteria is displayed proximate a second

query criteria within the visual query definition such that the first query criteria has an

OR query statement association with the second query criteria" at Figs. 2-17.

As per claim 18, Anick teaches the computer-readable storage media as recited

in claim 12, wherein "the visual query definition is bordered to define a query statement

association between a first query criteria displayed proximate a second query criteria within the visual query definition" at Figs. 2-13.

As per claim 19, Anick teaches the computer-readable storage media as recited in claim 12, further comprising "a second visual query definition displayed to associate additional query criteria of the query expression, wherein: the visual query definition includes the second visual query definition displayed within the visual query definition; and the query statement generator is further configured to generate a second query result for the second visual query definition such that the query result and the second query result can be displayed as multiple query results" at Figs. 2-13.

As per claim 20, Anick teaches the computer-readable storage media as recited in claim 12, wherein "the visual query definition is further displayed to associate additional query criteria, and wherein the query statement generator is further configured to: determine an additional query statement association for a display relationship of the additional query criteria; generate an additional SOL query statement for the additional query criteria; combine the SQL query statements and the additional SQL query statement according to the additional query statement association; and update the query result of the combined SOL query statements and the additional SQL query statements" at Figs. 2-13.

As per claim 21, Anick teaches the computer-readable storage media as recited in claim 12, wherein "the user interface is further configured to: display criteria selections that include the query criteria within a criteria selection display on the user interface; and display the query criteria within the visual query definition on the user interface" at Figs. 2-13.

As per claim 22, Anick teaches the computer-readable storage media as recited in claim 12, further comprising "data tables that maintain data criteria, and wherein the query criteria is displayed in user-identifiable terms as metadata that correlates to the data criteria maintained in the data tables" at Figs. 2-13.

As per claim 24, Anick teaches a computer-readable storage media encoded with computer-executable instructions that, when executed, display a user interface, comprising:

- "a criteria selection display of query criteria" at Figs. 2-13;
- "a visual query definition displayed to associate the query criteria of a query expression based on proximate positions of the query criteria in the visual query definition and without logic operators connected between the query criteria, each of the query criteria represented by a shape displayed within the visual query definition" at Col. 6 lines 1-20 and Figs. 2-13;

- "a display attribute of the visual query definition that defines a Boolean association of

  the query criteria represented by the shapes displayed within the visual query

  definition" at Figs. 2-13; and

- "a query result displayed within the visual query definition, the query result

  generated from a combination of one or more query statements that are combined to

  generate the query expression, the one or more query statements representing a

  shape of query criteria and the association of the query criteria" at Figs. 2-14, 17, 20,

  22-23.

As per claim 26, Anick teaches the computer-readable storage media as recited

in claim 24, wherein "the query criteria are drag-and-drop query criteria from the criteria

selection display to the visual query definition" at Col. 16 lines 50-65.

As per claim 27, Anick teaches the computer-readable storage media as recited

in claim 24, wherein "the visual query definition can be copied to create a second visual

query definition for display on the user interface, and wherein the second visual query

definition is redefined in an event that the visual query definition is redefined" at Figs.

10-11.

As per claim 29, Anick teaches the computer-readable storage media as recited

in claim 24, wherein "a color of the visual query definition defines the Boolean

association of the query criteria represented by the shapes displayed within the visual

query definition" at Figs. 2-13.

As per claim 30, Anick teaches the computer-readable storage media as recited

in claim 24, wherein "a border of the visual query definition defines the Boolean

association of the query criteria represented by the shapes displayed within the visual

query definition" at Figs. 2-13.

As per claim 31, Anick teaches the computer-readable storage media as recited

in claim 24, wherein "the one or more query statements are SQL query statements, and

wherein the query result is generated from the combination of the one or more SQL

query statements" at Col. 13 lines 15-40 and Col. 18 line 55 to Col. 19 line 60.

As per claim 32, Anick teaches the computer-readable storage media as recited

in claim 24, wherein "a first shape of query criteria is displayed proximate a second

shape of query criteria within the visual query definition such that the first shape has an

AND query statement association with the second shape" at Col. 6 lines 1-26 and Figs.

2-13.

As per claim 33, Anick teaches the computer-readable storage media as recited

in claim 24, wherein "a first shape of query criteria is displayed proximate a second

shape of query criteria within the visual query definition such that the first shape has an

OR query statement association with the second shape" at Col. 6 lines 1-26 and Figs. 2-13.

As per claim 34, Anick teaches the computer-readable storage media as recited in claim 24, further comprising "additional query criteria not associated with the visual query definition and displayed to indicate the non-association" at Figs. 2-13.

As per claim 35, Anick teaches a method, comprising:

- "displaying query criteria of a query expression as shapes on a user interface" at Figs. 2-13;

- "the shapes having a semantic relationship which represents logical associations between the query criteria, the query criteria further displayed as a first set of query criteria within a first visual query definition, and as a second set of query criteria within a second visual query definition such that the first set of query criteria includes the second set of query criteria" at Col. 6 lines 1-20 and Figs. 2-13;

- "determining a query statement association for each display relationship of the shapes of query criteria" at Col. 6 lines 1-20;

- "generating a SQL query statement for each shape of query criteria" at Col. 6 lines 10-26 and Figs. 2-13;

- "combining the SQL query statements according to the query statement associations to generate the query expression" at Figs.14, 17, 20, 22-23; and

- "displaying a query result of the query expression on the user interface" at Figs. 2-13.

As per claim 50, Anick teaches one or more computer readable storage media comprising computer executable instructions that, when executed, direct a computing device to:

- "display a visual query definition to associate query criteria of a query expression, the query criteria displayed as shapes having display relationships within the visual query definition" at Figs. 2-13;

- "determine a query statement association for each shape of query criteria according to the display relationships" at Col. 6 lines 1-26;

- "generate a query statement for each shape of query criteria" at Col. 6 lines 10-26;

- "combine the query statements according to the query statement associations to generate the query expression" at Figs. 14, 17, 20-23;

- "generate a query result of the combined query statements that form the query expression" at Figs. 14, 17, 20-23;

- "display the query result in the visual query definition on a user interface" at Figs. 2-13.

·**Claims 36, 38-39, 41-44, 46-49, 51-58** recite similar limitation as discusses in the rejection of the claims above and are therefore rejected by the same reasons.

Response to Arguments

7.   Applicant's arguments with respect to claims 1,3,4,6-10,12-14,16-22,24,26,27,29-36,38,39,41-44 and 46-58 have been considered but are moot in view of the new ground(s) of rejection.

Conclusion

Examiner's Note: Examiner has cited particular columns and line numbers in the references applied to the claims above for the convenience of the applicant. Although the specified citations are representative of the teachings of the art and are applied to specific limitations within the individual claim, other passages and figures may apply as well. It is respectfully requested from the applicant in preparing responses, to fully consider the references in entirety as potentially teaching all or part of the claimed invention, as well as the context of the passage as taught by the prior art or disclosed by the Examiner.

In the case of amending the Claimed invention, Applicant is respectfully requested to indicate the portion(s) of the specification which dictate(s) the structure

relied on for proper interpretation and also to verify and ascertain the metes and bounds

of the claimed invention.

The prior art made of record, listed on form PTO-892, and not relied upon, if any,

is considered pertinent to applicant's disclosure.

If a reference indicated as being mailed on PTO-FORM 892 has not been

enclosed in this action, please contact Lisa Craney whose telephone number is **(571)**

272-3574 for faster service.

Any inquiry concerning this communication or earlier communications from the

examiner should be directed to Khanh B. Pham whose telephone number is (571) 272-

4116. The examiner can normally be reached on Monday through Friday 7:30am to

4:00pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's

supervisor, Hosain Alam can be reached on (571) 272-3978. The fax phone number for

the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the

Patent Application Information Retrieval (PAIR) system. Status information for

published applications may be obtained from either Private PAIR or Public PAIR.

Status information for unpublished applications is available through Private PAIR only.

For more information about the PAIR system, see http://pair-direct.uspto.gov. Should

you have questions on access to the Private PAIR system, contact the Electronic

Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a

USPTO Customer Service Representative or access to the automated information

system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Khanh B. Pham
Primary Examiner
Art Unit 2166

January 3, 2008